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MARK A LAUER			DAVENPORT, MON CHERI S	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/678,336	BOUCHER ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Mon Cheri S. Davenport	2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 03 October 2003.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-27 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-27 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 03 October 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)✓  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)✓  
 Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_.

*Specification*

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

*Claim Rejections - 35 USC § 101*

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 21-23** rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 21-23, claims 21-23 lacks the proper preamble language for statutory computer program product. See MPEP 2100 for guidance on computer related inventions.

The examiner suggest a preamble as follows:

“A computer readable medium containing computer executable instructions to perform a method, the method comprising:”

*Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claim 17** recites the limitation "said generating" in which "generating" has not been mention earlier in claim. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-27 rejected under 35 U.S.C. 102(e) as being anticipated by Muller et al. (US Patent 6,483,804).**

Regarding **claim 1** Muller et al. disclose a method of identifying multiple packets in a communication flow between a source entity and a destination entity, comprising:

storing a first flow identifier of a first packet received from a source entity for a destination entity, wherein said first flow identifier comprises an identifier of the source entity and an identifier of the destination (see col. 11, lines 32-32, packet is copied and header is parsed to extract values, see col. 11, lines 14-19, source and destination, see figure 2);

storing said first packet in a packet memory for transfer toward the destination entity (see col. 11, line 32, packet is copied( stored));

storing a second flow identifier of a second packet ( see col. 11, lines 35-37, flow key, of communication flow);

storing said second packet in said packet memory( col. 1, line 32, packet copied( stored), see col. 12, lines 1-2); determining whether said first flow identifier matches said second flow

identifier (col. 11, lines 50- 52, entry is checked if a entry already exist for a packet flow, then updated to reflect a new flow packet) ;

storing a first indicator in the destination entity if a first communication flow identified by said first flow identifier comprises said second packet(see col. 11, lines 46-56, operation code is generated , to summarize the characteristic of packet, if entry already exist, for the packet flow , its updated to reflect receipt of new flow packet), ; and

storing a second indicator in the destination entity if said first packet is the only packet stored in the packet memory that is part of said first communication flow( see col. 11, lines 50- 59, the operation code is used and returned to the header parser with an index of the packet flow in the flow database).

Regarding **Claim 2** Muller et al. discloses everything as applied above (*see claim 1*). In addition the method includes:

prior to said storing a first flow identifier, parsing said first packet to retrieve said identifier of the source entity and said identifier of the destination entity ( see col. 11, lines 27- 31, packet is received by NIC packet is initially manipulated (parsed)).

Regarding **claims 3 and 22** Muller et al. disclose a method of identifying one or more packets in a communication flow between a source entity and a destination entity, comprising:

receiving a first packet at a communication device ( see col. 11, lines 23-24, receives one packet) ;

identifying a first communication flow comprising said first packet with a first flow identifier configured to identify both the source entity and the destination entity (see col. 11,

lines 32-32, packet is copied and header is parsed to extract values, see col. 11, lines 14-19, source and destination, see figure 2, see col. 11, lines 57-59, the operation code is returned to header parse with packet flow in the flow database));

determining whether said first communication flow also comprises a second packet received at said communication device after said first packet was received at said communication device ( see col. 11, lines 50-52, if an entry already exist for the packets flow, it is updated to reflect new flow packet) ; and

transferring said first packet to a host computer for processing in accordance with a communication protocol associated with said first packet ( see col. 11, lines 60-67, the packet is assign a processor of the host computer to process the packet, read on packet is transferred to the host computer).

Regarding **Claim 4** Muller et al. discloses everything as applied above (*see claim 3*). In addition the method includes:

transferring said second packet to said host computer; wherein said host computer is configured to collectively process a header portion of said first packet and a header portion of said second packet in accordance with said communication protocol (see col. 12, lines 54-61, the header portion is processed based on protocols headers, see col. 12, lines 18-27, the packets are transfer to host computer).

Regarding **Claims 5 and 18** Muller et al. discloses everything as applied above (*see claims 3 and 16*). In addition the method includes:

receiving a flow key generated by concatenating an identifier of the source entity and an identifier of the destination entity( col. 4 lines 18-24, header portion of packet generates flow key including source and destination);

wherein said first flow identifier comprises said flow key ( see col. 4, lines 18-24, header portion comprises flow key).

Regarding **Claims 6 and 17** Muller et al. discloses everything as applied above (*see claims 3 and 16*). In addition the method includes:

receiving an index of said first communication flow in a flow database ( see col. 4, lines 25-28 index by flow number, stored in flow database);

wherein said first flow identifier comprises said index ( see col. 4, lines 25-28, index by flow number which includes flow key).

Regarding **Claim 7** Muller et al. discloses everything as applied above (*see claim 3*). In addition the method includes:

wherein said determining comprises comparing said first flow identifier with a second flow identifier associated with a second packet received at said communication device ( see col. 4, lines 28-32, if flow key does already exist in the database (comparing) then a new flow exist).

Regarding **Claim 8** Muller et al. discloses everything as applied above (*see claim 7*). In addition the method includes:

wherein said determining further comprises: storing said first flow identifier in a flow memory ( see col. 4, lines 28-34, when a new flow is determined the flow key and flow information is stored in the database); and

storing said second flow identifier in said flow memory( see col. 4, lines 28-34, when a new flow is determined the flow key and flow information is stored in the database); and

comparing said stored first flow identifier and said stored second flow identifier( see col. 4, lines 28-32, if flow key does already exist in the database (comparing) then a new flow exist).

Regarding **Claim 9** Muller et al. discloses everything as applied above (*see claim 8*). In addition the method includes:

wherein said flow memory is an associative memory in said communication device( see col. 4, lines 26-28, flow database is managed by a flow database management module).

Regarding **Claim 10** Muller et al. discloses everything as applied above (*see claim 3*). In addition the method includes:

storing said first packet in a packet memory ( see col. 4, lines 36, packet is stored in packet memory).

Regarding **Claim 11** Muller et al. discloses everything as applied above (*see claim 10*). In addition the method includes:

wherein said determining comprises comparing said first flow identifier configured to identify said first communication flow with a second flow identifier configured to identify a

second communication flow comprising a packet stored in said packet memory ( see col. 4, lines 28-32, if flow key does already exist in the database (comparing) then a new flow exist).

Regarding **Claim 12** Muller et al. discloses everything as applied above (*see claim 3*). In addition the method includes:

informing said host computer of said transfer of said first packet ( see col. 4, lines 50-52, indicator stored informing host, packet of flow).

Regarding **Claim 13** Muller et al. discloses everything as applied above (*see claim 12*). In addition the method includes:

wherein said informing comprises configuring an indicator in a host memory( see col. 4, lines 50-52, indicator stored informing host, packet of flow).

Regarding **Claim 14** Muller et al. discloses everything as applied above (*see claim 13*). In addition the method includes:

wherein said indicator is configured to indicate that said host computer should delay processing said first packet until said second packet is transferred to said host computer ( see col. 4, lines 44-47, if another has the same flow number the host is alerted by storing a indicator).

Regarding **Claim 15** Muller et al. discloses everything as applied above (*see claim 13*). In addition the method includes:

wherein said indicator indicates that said host computer should not delay processing said first packet ( see col. 4, lines 50-54, host is sent indicator indicating if it should delay or process packet ).

Regarding claims 16 and 21 Muller et al. disclose a method of transferring a packet from a network interface to a host computer, comprising:

receiving a first packet at a network interface ( see col. 4, lines 11-13, packet is transferred form the network);

storing said first packet in a packet memory ( see col. 4, line 36, packet is store in packet memory);

receiving a first flow identifier configured to identify a communication flow comprising said first packet ( see col. 4, 18-22, packet header portion is flow identifier, identifying the communication flow);

storing said first flow identifier in a flow memory ( see col. 4, lines 26-26, flow key of header portion are store in flow database);

searching said flow memory for a second packet in said communication flow received at the network interface after said first packet memory (see col. 4, lines 28-32, if flow key does already exist in the database (comparing) then a new flow exist (searching for a second packet in flow));

transferring said first packet to said host computer ( see col. 4, lines 36-37, packets to be transferred to host computer); and

configuring an indicator in a host memory to indicate whether processing of said first packet by said host computer should be delayed to await transfer of said second packet to said host memory ( see col. 4, lines 50-54, host is sent indicator indicating if it should delay or process packet ).

Regarding **Claim 19** Muller et al. discloses everything as applied above (*see claim 16*). In addition the method includes:

wherein said packet memory comprises said flow memory ( see col. 4, lines 39-44, when packet is transferred, flow memory is searched for another packet stored in the packet memory).

Regarding **Claims 20 and 27** Muller et al. discloses everything as applied above (*see claims 16 and 3*). In addition the method includes:

storing a first indicator in a host memory if said communication flow comprises said second packet (see col. 4, lines 33-46, host computer is alerted if another packet has the same flow number, meaning part of the communication flow); and

storing a second indicator in said host memory if said first packet is the only packet in said packet memory that is part of said communication flow( see col. 4, lines 50-54, host is sent indicator indicating if it should delay or process packet ).

Regarding **claim 23** Muller et al. disclose a processor readable storage medium containing a data structure configured to store information concerning a packet to be transferred from a network interface to a host computer, the data structure including one or more entries, each entry comprising:

a flow number configured to identify a communication flow comprising a first packet received at the network interface from a source entity for a destination entity associated with the host computer ( see col. 4, lines 22-28, flow database in indexed by flow number, to be transferred to host computer, see col. 4, lines 36-37); and

a validity indicator configured to provide:

a first indication if said first packet is ready for transfer to the host computer ( see col. 4, lines 50-52, indicator stored informing host, packet of flow); and

a second indication if said first packet is a control packet ( see col. 9, lines 26-33, operation code determines if packet is a control packet);

wherein said data structure is searched for a second entry containing said flow number when said first packet is transferred to the host computer to determine if said communication flow also comprises a second packet received at the network interface after said first packet (see col. 4, lines 33-46, host computer is alerted if another packet has the same flow number, meaning part of the communication flow).

Regarding **Claim 24** Muller et al. discloses everything as applied above (*see claim 3*). In addition the method includes:

wherein said identifying comprises: parsing said first packet to retrieve an identifier of the source entity and an identifier of the destination entity( see col. 11, lines 27-31, packet is received by NIC packet is initially manipulated (parsed)); and

combining said source entity identifier and said destination entity identifier to form said first flow identifier( see col. 11, lines 27-31, packet is received by NIC packet is initially manipulated (parsed), source and destination included , see also col. 4, lines 22-26).

Regarding claim 25 and 26 Muller et al disclose a communication interface, comprising:

a header parser configured to parse a header of a first packet received at the communication interface, wherein the first packet was issued from a source entity for a destination entity ( see figure 1a, section 106, header parser);

a flow database configured to facilitate management of a communication flow comprising the first packet, the flow database comprising ( see figure 1a, section 108, flow database):

a flow key configured to identify the communication flow using identifiers of the source entity and the destination entity ( see figure 1a, section 108, flow database , which has flow keys see also col. 4, lines 22-28);

an activity indicator configured to indicate a recency with which a packet in the communication flow has been received ( see figure 1a, section 108, see figure 6b section 622, activity indicator); and

a validity indicator for indicating whether the communication flow is valid ( see figure 1a, section 108, see figure 6b section 622, validity indicator);

a code generator configured to generate an operation code for the first packet, to facilitate forwarding of the first packet toward the destination entity ( see figure 1a, section 108, col. 9, lines 25-26); and

a packet batching module configured to determine whether a second packet received at the communication interface is part of the communication flow ( see figure 1a, section 122, packet batching module).

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mon Cheri S. Davenport whose telephone number is 571-270-1803. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MD/md  
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